

10/527294

Rec'd PCT/PTO 09 MAR 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
25 March 2004 (25.03.2004)

PCT

(10) International Publication Number  
WO 2004/024675 A1

(51) International Patent Classification<sup>7</sup>: C07C 233/78,  
255/57, C07D 263/32, 277/30, C07C 237/34, C07D  
413/04, 213/81, 413/12, 213/30, 239/26, A61K 31/166,  
31/277, 31/421, 31/426, 31/4439

(74) Agent: SHALTOUT, Raafat, M.; McDonnell Boehnen  
Hulbert & Berghoff, Suite 3200, 300 South Wacker Drive,  
Chicago, IL 60606 (US).

(21) International Application Number:  
PCT/US2003/028388

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,  
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:  
10 September 2003 (10.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/409,565 10 September 2002 (10.09.2002) US

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): PHAR-  
MACIA & UPJOHN [US/US]; 301 Henrietta Street, Kala-  
mazoo, MI 49007 (US).

## Published:

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

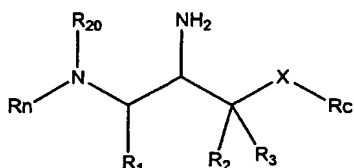
(72) Inventors; and

(75) Inventors/Applicants (*for US only*): BECK, James, P.  
[US/US]; 8351 Canary Lane, Kalamazoo, MI 49009 (US).  
DROWNS, Matthew [US/US]; 4654 Sweet Cherry Lane,  
Kalamazoo, MI 49004 (US). WARPEHOSKI, Martha, A.  
[US/US]; 7600 Curry Lane, Portage, MI 49024 (US).

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

WO 2004/024675 A1

(54) Title: SUBSTITUTED AMINOETHERS FOR THE TREATMENT OF ALZHEIMER'S DISEASE



(I)

(57) Abstract: The invention provides compounds of formula (I): useful in treating Alzheimer's disease and other similar diseases. These compounds include inhibitors of the beta-secretase enzyme that are useful in the treatment of Alzheimer's disease and other diseases characterized by deposition of A beta peptide in a mammal. The compounds of the invention are useful in pharmaceutical compositions and methods of treatment to reduce A beta peptide formation.